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ESTIMATED U.S. PETROLEUM BALANCE

SUMMARY

Reversing the downward trend of the previous eight years, petroleum's estimated share of total energy consumption has increased in the first half of 1986. The gain in share was the result of little change in total energy use coupled with a 2.0 percent increase in petroleum products supplied for the first half. For June, total products supplied rose 4.3 percent. Nearly two thirds of the 666 thousand B/D June rise was the result of a strong increase in residual fuel oil deliveries. Gasoline rose 3.3 percent, adding support to the hypothesis that last month's decrease in deliveries did not reflect an actual decline in consumption.

Crude oil production declined again in June; in the lower 48, June production is estimated to be roughly 150 thousand B/D below the 1985 trend. Imports rose more than 1.7 million B/D, largely because of the high levels of crude oil imports as refinery utilization continued in the high 80s for the second month in a row. With refinery output and net imports of products exceeding quantities supplied, product inventories rose 23 million barrels.

PRODUCTS SUPPLIED[1/]

Total Energy

OIL'S SHARE REVERSES DECLINE. Despite a decline in the first quarter due to weather warmer than in the first quarter of 1985, total energy consumption in the first half of 1986 is estimated to have been about even with the same period last year. Petroleum's 2.0 percent deliveries increase translates into close to a one percentage point addition in market share, gained mainly at the expense of natural gas. This increase for petroleum is a reversal of the eight-year decline from a peak of nearly 49 percent in 1977 to 41.8 percent last year. Market shares for coal and for other energy sources (primarily nuclear and hydroelectric) are estimated to have changed little in the first half of 1986.

ESTIMATED ENERGY CONSUMPTION BY TYPE
(Quadrillion BTU)

	Coal	Natural Gas	Petroleum	Other	Total
First half 1985	8.5	9.5	15.3	3.9	37.1
First half 1986	8.6	9.0	15.6	4.0	37.1
Change	0.1	-0.5	0.3	0.1	0.0
Percent change	0.6%	-5.3%	2.0%	2.9%	0.0%
Share, first half 1985	23.0%	25.5%	41.1%	10.4%	100.0%
Share, first half 1986	23.1%	24.2%	42.0%	10.7%	100.0%
Percentage point change in market share	0.1	-1.3	0.9	0.3	

Note: figures are rounded independently and are based on unrounded data.

Gasoline

UP 3.3 PERCENT IN JUNE. After dropping nearly 2 percent in May, gasoline deliveries rose 3.3 percent year-to-year in June, tending to confirm that the prior month's decline in deliveries was not due to reduced consumption. The size of the deliveries increase is in line with last month's estimate of consumption gains and supports the view that lower prices and economic growth have increased gasoline use.

Prices slipped several cents by the end of June—contrary to typical seasonal patterns—partly as a result of supply increases that exceeded the increase in deliveries. Retail prices for the month averaged about 25 percent below year-ago levels.

Distillates

GAIN FOR QUARTER DESPITE JUNE DECLINE. Distillate deliveries declined 1.6 percent in June but rose 4.1 percent for the second quarter. Though trucking activity has been increasing in recent months—about 3 percent in May versus last May and 2 percent year-to-date—other sectors as a group suggest little in the way of consumption increases. Residential and commercial use is at its seasonal low and any movement in heating oil deliveries more likely reflects adjustments in secondary storage rather than consumption changes in this sector. Rail traffic has been relatively flat compared with a year ago and farm acreage is down. Some fuel switching may involve distillates, though the volumes are probably relatively small. Thus, though June's decline in deliveries does not likely indicate a decline in consumption, any increase is likely to have been small.

Residual Fuel Oil

ELECTRIC UTILITY USE GROWS. Deliveries of residual fuel oil jumped to over 1,400 thousand B/D in June with an increase of roughly 400 thousand B/D (38 percent). Though residual fuel oil supplied has risen in each of the previous four months by as much as 18 percent, the June increase is unusually large and may reflect in part increased buying interest due to a price decline in June. Year-to-date, deliveries have risen 160 thousand B/D, mostly due to fuel switching at utilities. For the first four months of this year, utility purchases have increased 110 thousand B/D or nearly 30 percent, and may have increased even more in recent months. Even so, this year's use by utilities is lower than for the same period in 1984 and previous years and accounts for less than 5 percent of this year's energy inputs in that sector. Little year-to-year change has been apparent in bunkering; for the remaining portion of residual fuel oil demand, warmer weather in the first quarter may have partially offset some increased industrial use due to switching.

Kerosine Jet Fuel

MILES FLOWN RISE MORE THAN PASSENGERS. Continuing its strong gains of the past few months, kerosine jet fuel again rose in June, increasing by 213 thousand B/D (23 percent). While revenue passenger miles have been running ahead of corresponding 1985 figures by about 4 percent in recent months, the increase in aircraft miles has been substantially larger. In May, available seat miles (which approximately parallel aircraft miles) rose 15 percent, year-to-year, while reduced load factors, especially on international flights, pared this down to a less-than-5 percent increase in revenue passenger miles. Aircraft miles and seat miles, however, better indicate jet fuel requirements.

Other Oils

DOWN 1.3 PERCENT. Other oils supplied in June declined 1.3 percent (50 thousand B/D), and for the year to date a slight increase (0.6 percent) is estimated. However, the small changes in the aggregate obscure divergent developments for individual products. Data available for the first four months of 1986 show a 22 percent (73 thousand B/D) increase in petrochemical feedstock deliveries due to increased production in that sector; butane deliveries rose 28 percent (43 thousand B/D) and refinery gas utilization rose 6.3 percent (34 thousand B/D). Meanwhile, reduced feedstock use and warmer weather, respectively, brought about an 8.4 percent (50 thousand B/D) decline for ethane and a 7.9 percent (74 thousand B/D) drop for propane.

(In millions of B/D)	JUNE ESTIMATES			YEAR-TO-DATE ESTIMATES		
	1986	1985	% Change	1986	1985	% Change
—Total domestic products supplied	16.2	15.5	4.3	16.0	15.7	2.0
—Motor gasoline supplied	7.2	7.0	3.3	6.9	6.8	1.3
—Distillate fuel oil supplied	2.6	2.6	(1.6)	3.0	3.0	1.6
—Residual fuel oil supplied	1.4	1.0	38.2	1.4	1.2	13.1

SUPPLY[1/]

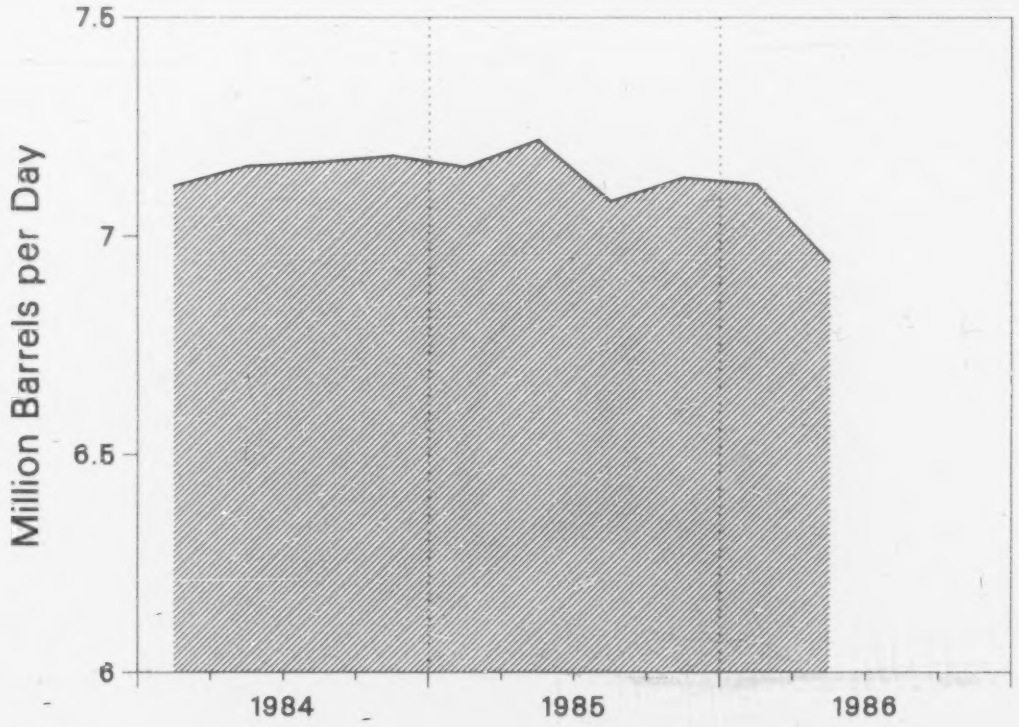
Total supply increased 1,372 thousand B/D in June, with imports rising 1,732 thousand B/D and domestic supply declining 360 thousand B/D.

Production

150 MBD BELOW TREND IN LOWER 48. Crude oil production continued its downward trend in June, dropping by an estimated 214 thousand B/D (2.4 percent) year-to-year. Though Alaskan production was slightly ahead of last June, lower 48 production fell 226 thousand B/D. As Figure 1 shows, this year's fall in crude oil prices has brought preliminary estimates of lower 48 production in the most recent quarter to less than 7 million B/D, a drop of nearly 150 thousand B/D below the 1985 trend.

FIGURE 1

LOWER 48 CRUDE OIL PRODUCTION BY QUARTERS



Sources: Department of Energy, American Petroleum Institute

Imports

CRUDE IMPORTS HIGHEST SINCE 1981. The increase in total imports of over 1.7 million B/D (36 percent) was mainly the result of higher crude oil imports. Imports of crude oil, which have been rising along with refinery runs since March, reached an estimated 4,508 thousand B/D in June—up 1,474 thousand B/D from last June and the highest level since February, 1981. Product imports also rose year-to-year for the first time since January, with residual fuel oil's 373 thousand B/D increase more than offsetting a decline for other products.

Increased imports this year have come mainly from OPEC countries and Saudi Arabia in particular. For the first four months of 1986, 43.4 percent of U.S. imports came from OPEC sources, up more than 10 percentage points from the 33.1 percent share of January-to-April 1985. On an annual basis, OPEC's share of U.S. foreign supplies has not exceeded this year's level since 1981. Imports from Saudi Arabia have increased by half a million barrels per day versus the first four months of last year, a reflection of that country's increased production levels.

Inventories

PRODUCTS RISE MORE THAN SEASONALLY. Despite the increased level of crude oil imports, high refinery runs brought stocks of crude oil down about 5 million barrels during June. Product stocks, however, rose about 23 million barrels, more than twice the historical June average, as refinery output plus net product imports exceeded deliveries. Gasoline inventories, which have more often decreased than increased in June in recent years, rose 7 million barrels during the month as refinery gasoline production reached a recent-year high.

Refinery Operations

GASOLINE PRODUCTION EXCEEDS 7 MMBD. Refinery utilization, already high in May compared to recent years, inched up to 87.0 percent in June, the highest monthly rate since 1979. As has been previously noted in this publication and elsewhere, not all of "operable" capacity has been in actual operation in recent years, though idle distillation capacity has declined from about 2 million B/D in early 1983 to less than 1 million B/D in April of this year. It is estimated that the portion of this idle capacity that has been unused for more than a year ranges from one fourth in the Gulf Coast area to two-thirds on the West Coast, averaging a little less than half nationally. If refining capacity idle for more than one year is excluded, the utilization rate rises to nearly 90 percent for June.

Gasoline production in June averaged 7.1 million B/D, up 5 percent from last June and the highest level since the late 1970s.

(In millions of B/D)	JUNE ESTIMATES			YEAR-TO-DATE ESTIMATES		
	1986	1985	% Change	1986	1985	% Change
—Total supply	17.5	16.1	8.5	16.8	16.0	4.5
—Crude production[2/]	8.8	9.0	(2.4)	8.9	9.0	(0.9)
—Crude oil imports[3/]	4.5	3.0	48.6	3.6	2.9	25.2
—Product imports	2.0	1.7	14.8	1.8	1.8	(3.1)

API Survey on Oil and Gas Expenditures now available — The report details 1983 spending for exploration, development, and production for such items as drilling costs, acreage acquisition, improved recovery, operating costs, taxes, and others. The estimates are broken out geographically for onshore/offshore lower 48 and total Alaska and between larger and smaller companies. The report is intended to fill the gap left by the discontinuation of the Census Bureau's *Annual Survey of Oil and Gas* and is priced at $10. To order, contact the Publications and Distribution Section, American Petroleum Institute, 1220 L Street Northwest, Washington, D. C. 20005.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 502 million barrels as of June 30, 1986).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	JUNE			YEAR-TO-DATE		
	1986[1]	1985[2]	% Change	1986[3R]	1985[2]	% Change
Products Supplied:						
Total motor gasoline	7,230	6,997	3.3	6,859	6,769	1.3
Finished leaded motor gasoline*	2,204	2,515	(12.4)	2,195	2,491	(11.9)
Finished unleaded motor gasoline*	5,026	4,482	12.1	4,664	4,278	9.0
Naphtha-jet	203	232	(12.5)	199	220	(9.5)
Kerosine-jet	1,123	910	23.4	1,073	964	11.3
Distillate fuel oil	2,553	2,594	(1.6)	3,028	2,979	1.6
Residual fuel oil	1,441	1,043	38.2	1,386	1,226	13.1
All other oils[4]	3,903	3,953	(1.3)	3,750	3,726	0.6
Reclassified[5]	- 303	- 245	23.7	- 313	- 211	48.3
Total domestic products supplied	16,150	15,484	4.3	15,982	15,673	2.0
Exports	768	692	11.0	798	749	6.5
Total products supplied	16,918	16,176	4.6	16,780	16,422	2.2
Supply:						
Domestic production:						
Crude oil[6]	8,808	9,022	(2.4)	8,928	9,009	(0.9)
Natural gas liquids	1,568	1,597	(1.8)	1,629	1,604	1.6
Other supply[7]	628	745	(15.7)	827	709	16.6
Total domestic supply	11,004	11,364	(3.2)	11,384	11,322	0.5
Imports:						
Crude oil, total	4,508[10/]	3,034[10/]	48.6	3,577[10/]	2,856[10/]	25.2
Canadian	628	455	38.0	561	474	18.4
Other	3,880	2,579	50.4	3,016	2,382	26.6
Products, total	1,999	1,741	14.8	1,793	1,850	(3.1)
Residual fuel oil	773	400	93.3	603	466	29.4
Other	1,226	1,341	(8.6)	1,190	1,384	(14.0)
Total imports	6,507	4,775	36.3	5,370	4,706	14.1
Total supply	17,511	16,139	8.5	16,754	16,028	4.5
Stock change, all oils	+ 593	- 37	XXXX	- 26	- 394	XXXX
Refinery Operations						
Input to crude oil distillation units	13,491	12,422	8.6	12,655	11,871	6.6
Operable capacity	15,511	15,669	(1.0)	15,517	15,629	(0.7)
Refinery utilization (%)[8]	87.0%	79.3%	9.7	81.6%	76.0%	7.4
Crude oil runs	13,285	12,292	8.1	12,497	11,731	6.5

Stocks (millions bbls.)	1986		1985[2]	% Change from ...	
	Jun. 30[9]	May 31[9]	Jun. 30	Previous Month	Year Ago
Crude oil [10/]	321.6	326.3	344.1	(1.4)	(6.5)
Unfinished oils	112.6	113.9	113.8	(1.1)	(1.1)
Total motor gasoline**	227.2	220.2	218.3	3.2	4.1
Finished leaded motor gasoline*	73.3	70.4	85.1	4.1	(13.9)
Finished unleaded motor gasoline*	118.8	115.5r/	101.1	2.9	17.5
Naphtha-jet	6.0	5.7	6.2	5.3	(3.2)
Kerosine-jet	38.8	38.5r/	36.5	0.8	6.3
Distillate fuel oil	105.5	98.3r/	109.7	7.3	(3.8)
Residual fuel oil	38.7	37.0	39.6	4.6	(2.3)
All other oils	170.3	163.0r/	166.3	4.5	2.4
Total all oils	1,020.7	1,002.9r/	1,034.5	1.8	(1.3)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: January-April, U.S. Department of Energy, May-June, API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes unaccounted-for crude oil, refinery input of other hydrocarbons, and processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	2nd QUARTER		
	1986[1]	1985[2]	% Change
Products Supplied:			
Total motor gasoline	7,077	7,005	1.0
Finished leaded motor gasoline*	2,240	2,563	(12.6)
Finished unleaded motor gasoline*	4,837	4,442	8.9
Naphtha-jet	205	235	(12.8)
Kerosine-jet	1,087	941	15.5
Distillate fuel oil	2,776	2,666	4.1
Residual fuel oil	1,350	1,109	21.7
All other oils[3]	3,708	3,742	(0.9)
Reclassified[4]	- 294	- 211	39.3
Total domestic products supplied	15,909	15,487	2.7
Exports	788	720	9.4
Total products supplied	16,697	16,207	3.0
Supply:			
Domestic production:			
Crude oil[5]	8,824	9,066	(2.7)
Natural gas liquids	1,577	1,591	(0.9)
Other supply[6]	697	769	(9.4)
Total domestic supply	11,098	11,426	(2.9)
Imports:			
Crude oil, total	4,080[9/]	3,281[9/]	24.4
Canadian	624	506	23.3
Other	3,456	2,775	24.5
Products, total	1,809	1,902	(4.9)
Residual fuel oil	612	392	56.1
Other	1,197	1,510	(20.7)
Total imports	5,889	5,183	13.6
Total supply	16,987	16,609	2.3
Stock change, all oils	+ 290	+ 402	XXXX
Refinery Operations			
Input to crude oil distillation units	13,172	12,221	7.8
Operable capacity	15,497	15,656	(1.0)
Refinery utilization (%)[7]	85.0%	78.1%	8.8
Crude oil runs	13,005	12,064	7.8

Stocks (millions bbls.)	2nd QUARTER		
	1986[8]	1985[2]	% Change
Crude oil	321.6[9/]	344.1[9/]	(6.5)
Unfinished oils	112.6	113.8	(1.1)
Total motor gasoline**	227.2	218.3	4.1
Finished leaded motor gasoline*	73.3	85.1	(13.9)
Finished unleaded motor gasoline*	118.8	101.1	17.5
Naphtha-jet	6.0	6.2	(3.2)
Kerosine-jet	38.8	36.5	6.3
Distillate fuel oil	105.5	109.7	(3.8)
Residual fuel oil	38.7	39.6	(2.3)
All other oils	170.3	166.3	2.4
Total all oils	1,020.7	1,034.5	(1.3)

1/ Source: U.S. Department of Energy, April; May-June, API.
2/ Source: U.S. Department of Energy.
3/ Includes crude losses.
4/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
5/ Includes lease condensate.
6/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
7/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
8/ Derived by interpolating API weekly stocks data.
9/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.